WHAT IS CLAIMED IS:

1   1.   A method comprising the steps of:

2   receiving first data associated with a block of data at a video processor;

3   when in a first mode of operation, accessing table data in a table in a first manner to

4   perform a first transform of the first data; and

5   when in a second mode of operation, accessing table data in the table in a second manner

6   to perform a second transform of the first data, wherein the second transform is an

7   inverse transform relative to the first transform.

1   2.   The method as in Claim 1, wherein the block of video data is associated with 8x8 image data.

3.   The method as in Claim 1, wherein the block of video data is associated with 2-4-8 image data.

4.   The method as in Claim 1, further including the step of determining one of the first mode of operation or the second mode of operation based on a tag associated with the first data, wherein the tag identifies a transform associated with the first data.

1   5.   The method as in Claim 1, wherein accessing in a first manner includes accessing the

2   table data in the table in a row-major scheme and accessing in a second manner includes

3   accessing the table data in the table in a column-major scheme.

1   6.   The method as in Claim 1, wherein the table includes a discrete cosine transform matrix.

1   7.   The method as in Claim 6, wherein the first transform includes a forward discrete cosine

2   transform and the second transform includes an inverse discrete cosine transform.

1   8.   The method as in Claim 1, wherein the first and second transform are performed using

2   common hardware.

1 9. A method comprising the steps of:

2 receiving data associated with a block of data at a video processor;

3 when the block of data is of a first type, providing a first table to a transform engine to

4 transform the data; and

5 when the block of data is of a second type, providing a second table to the transform

6 engine to transform the data.

1 10. The method as in Claim 9, further including the steps of:

2 when in a first mode of operation, accessing one of the first table or the second table in a

3 first manner to perform a first transform; and

4 when in a second mode of operation, accessing one of the first table or the second table in

5 a second manner to perform a second transform, wherein the second transform is

6 an inverse transform relative to the first transform.

11. The method as in Claim 10, wherein accessing in a first manner includes accessing one of

the first table or the second table using a row-major scheme and accessing in a second

manner includes accessing one of the first table or the second table using a column-major

scheme.

1 12. The method as in Claim 9, further including the step of determining the type of data.

1 13. The method as in Claim 12, wherein motion estimation is performed to determine the

2 type of data.

1 14. The method as in Claim 12, wherein a tag associated with the block of data is used to

2 determine the type of data.

1 15. The method as in Claim 9, wherein the first type includes 8-8 image data and the second

2 type includes 2-4-8 image data.

1 16. The method as in Claim 9, wherein the first table includes a first DCT matrix associated

2 with the first type and the second table includes a second DCT matrix associated with the

3 second type.

1 17. A method comprising the steps of:

2   receiving data associated with a block of data at a video processor;

3   providing a first table to a transform engine to generate a first transform of the data;

4   providing a second table to the transform engine to generate a second transform of the

5   data; and

6   selecting one of the first transform or the second transform dependent on a comparison of

7   values associated with the first transform and the second transform.

1 18. The method as in Claim 17, wherein the comparison includes identifying one of the first

2   transform or the second transform associated with smaller values.

1   19.   A system comprising:

2   a reader to access data associated with a block of data;

3   a transform engine to transform the data according to a table;

4   a table access component to:

5   access said table in a first manner to perform a first transform;

6   access said table in a second manner to perform a second transform, wherein the

7   second transform is an inverse transform relative to the first transform; and

8   a memory to store said data, said table, and a result from one of said first transform or

9   said second transform.

1   20.   The system as in Claim 19, wherein said block of data is associated with one of 8-8 image data or 2-4-8 image data.

21.   The system as in Claim 19, wherein said reader includes an input port to determine one of said first manner or said second manner to access said table.

22.   The system as in Claim 21, wherein said first manner includes accessing said table in a row-major scheme and said second manner includes accessing said table in a column-major scheme.

1   23.   The system as in Claim 19, wherein said table includes a discrete cosine transform matrix

2   and further wherein said first transform includes a forward discrete cosine transform and

3   said second transform includes an inverse discrete cosine transform.

1   24.   A system comprising:

2   a reader to access data associated with a block of data, said reader to:

3   provide a first table to a transform engine, when the block of data is of a first type;

4   provide a second table to said transform engine, when the block of data is of a

5   second type;

6   said transform engine to transform said data using one of said first table or said second

7   table; and

8   a memory to store said data, said first table, said second table and a transform result from

9   said transform engine.

1   25.   The system as in Claim 24, wherein the first type is 8-8 image data and the second type is 2-4-8 image data.

26.   The system as in Claim 24, wherein said reader determines a type of data dependent on a tag associated with the block of data.

27.   The system as in Claim 24, wherein said first table includes a discrete cosine transform associated with the first type and the said second table includes a discrete cosine transform associated with the second type.